The High Plains Drifter

Issue VI Fall 2009

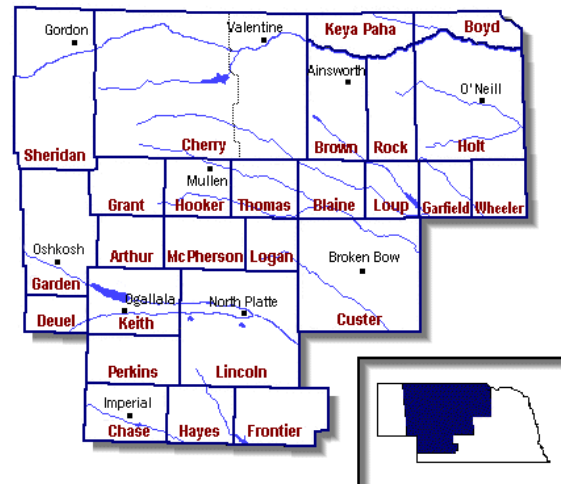
NATIONAL WEATHER SERVICE
NORTH PLATTE, NE

http://www.weather.gov/northplatte

Winter officially begins December 21st. Are you ready?

Prepare Today For Tomorrow

In Nebraska, winter always bring a variety of weather that only Nebraskan's can appreciate. While the snow has already fallen across western and north central Nebraska, we officially kick off the season's winter weather awareness the first week of November. Warning Coordination Meteorologist Deb Blondin leads our articles off with winter weather preparedness information.



Then the making of an El Nino weather pattern this winter may bring a milder winter that Meteorologist Chris Buttler gives some insight to. Then read on to gain more information on outlooks, cooperative news and other topics in order to be prepared and weather wise!

WHAT'S INSIDE

Winter Weather Awareness Week

Nebraska's Winter Weather Awareness Day is November 5th, 2009

The National Weather Service, along with the State of Nebraska, has declared **November 5th as Winter Weather Awareness Day**. The National Weather Service is using this day as an opportunity to get information out to the citizens of Nebraska about winter weather, its impacts, and how to protect life and property.

The 2008-2009 Winter Season proved to be a tough one for most of North Central and Western Nebraska. The arctic cold settled into the area in mid-December and then extreme winds and snow contributed to wintry conditions all the way through April. There were events cancelled, roadways shut down, power outages, and livestock lost. Without proper planning, the outcomes could have been much worse. Keeping the dangers of winter weather in mind, now is the time to prepare for this season.

Anytime there is a significant winter weather event across North Central and Western Nebraska, you will be able to find summaries of these events on our web page. Information in these summaries will include snowfall reports and any impacts. If you have any reports of snowfall accumulations or any damage from a winter storm, we would greatly appreciate that information.

We hope that you will find the enclosed information useful. Remember to tune into NOAA Weather Radio All-Hazards or a local radio or television station when winter weather strikes. If you have any questions about the information given here, please do not hesitate to contact me.

Deb Blondin, Warning Coordination Meteorologist
National Weather Service
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During Winter Be Prepared—Before the Storm Strikes!!

It is very important to be prepared in case a winter storm strikes, and everyone should create a plan for what you and your family will do in case of a storm. Having your car fully checked and winterized, along with having supplies available if you are stranded for a period of time in your home or at work, are things that should be done before each winter season arrives.

At Work and Home

Be aware that you may lose heat, power, or phone service for several days. Make sure you have enough supplies to last if the storm goes on for more than one day.

Make sure to have…

- First aid supplies.
- Flashlight, battery powered AM/FM or NOAA weather radio, and extra batteries.
- Extra food and water. Have high calorie foods that require no cooking or refrigeration.
- Extra medicine and items to take care of infants and the elderly.
- Emergency heating source, such as a fireplace, wood stove, or space heater.
- Heating fuel. Fuel carriers may not be able to reach you for days after a winter storm.
- Fire extinguisher and smoke alarm.
- Shelter, food, and water for any pets.

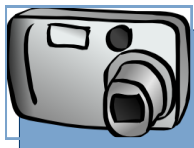
On the Farm or Ranch

- Move animals to sheltered areas.
- Haul extra feed to nearby feeding areas.
- Have plenty of water available for the animals.

In Vehicles

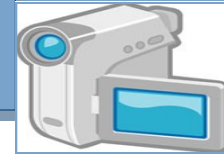
- Make sure to fully check and winterize your vehicle before the winter season.
- Always check the latest weather reports and forecasts before heading out on the road.
- Plan out your trip and let someone know of your timetable and primary and alternate routes.
- Avoid traveling alone.
- Never let your gas tank get close to empty, to avoid ice in the tank and fuel lines.

To learn more safety tips visit: **http://www.crh.noaa.gov/lbf/?n=winter_safety**



If you have pictures or a video to share of any winter weather events that take place this year, please contact ***Debra.Blondin@noaa.gov***

With your permission, your pictures and video will provide information and training materials for future storm spotters and meteorologists!



Winter Weather Outlook 2009-2010 an El Nino Winter

By Christopher Buttler, Senior Meteorologist

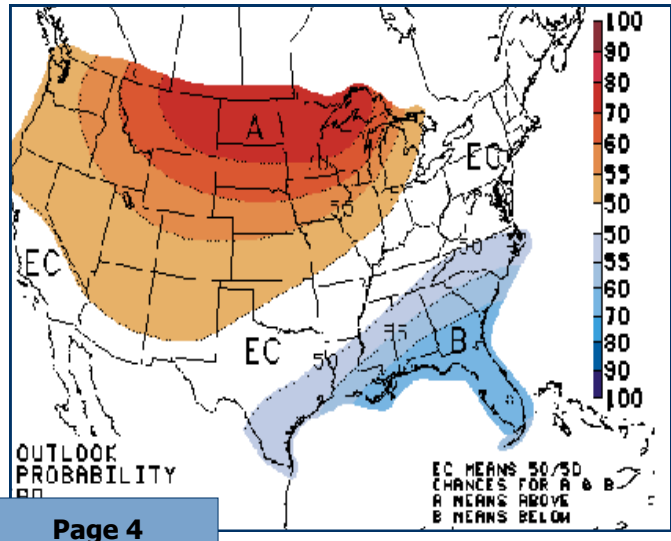
If you were wishing for a milder winter this season, you might be in luck over western and north central Nebraska. Since late spring, ocean surface temperatures in the equatorial Pacific southwest of Hawaii, have been steadily warming. By mid summer, ocean surface temperatures in the equatorial Pacific had risen further and were 0.7° C above normal. When ocean surface temperatures eclipse 0.5° C above normal, an El Nino (ENSO) episode is declared. ENSO conditions are expected to increase into winter, peaking during the December to February time frame. Latest forecast trends indicate the ENSO index peaking in the 1.0° C to 1.5° C range, making it a moderate to strong event. Believe it or not, warmer ocean surface temperatures a half a world a way impact weather conditions across North America.

During an ENSO episode, the southern branch of the jet stream strengthens and becomes focused across the southern United States. This pattern favors cooler and wetter than normal conditions across the southern tier of states from California to Florida. Further north, the northern tier of states from Washington and Oregon to the Great Lakes, typically has warmer than normal temperatures during the winter months. The signal for precipitation isn't as definite in the north as it is in the south, so near normal precipitation is usually forecast.

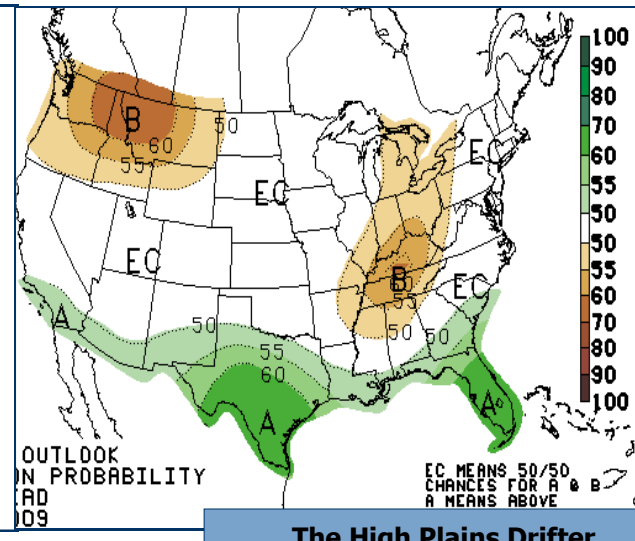
With Nebraska being smack dab in the middle of the country, how does ENSO impact our winter here? Local research has indicated, with a moderate to strong ENSO, warmer than normal temperatures are favored. The signal for warmer than normal temperatures is strongest across northern Nebraska and slightly weaker over southern Nebraska. As for precipitation, in a moderate to strong ENSO event, wetter than normal conditions are favored over southern Nebraska, while the signal for precipitation is very weak over northern Nebraska.

The Winter Outlook for December, January and February

Temperatures



Precipitation



WHAT'S NORMAL SNOWFALL

By Matt Masek, Meteorologist

Winters in Nebraska can vary greatly delivering all kinds of weather. Typically the first snowfall occurs in October, however occasionally winters start early with snowfall in September or late with snow not being reported until November. The last snowfall will normally occur in April. The 30 year normal seasonal snowfall totals across western and north central Nebraska range from around 28 inches in North Platte to near 37 inches at Valentine. Tables 1 and 2 show the past 10 years of recorded snowfall, the 30 year normal seasonal snowfall and the 10 year average for North Platte and Valentine, respectively.

Table 1. North Platte Winter Seasonal Snowfall

NORTH PLATTE - Winter Season Snowfall

	Normal Snowfall	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	10 Yr Average
July	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
August	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
September	0.2	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
October	1.0	0.0	0.0	0.0	8.2	0.0	0.0	0.0	0.8	0.0	1.1	1.0
November	4.9	1.4	10.6	1.6	1.0	1.2	9.9	3.9	2.0	0.6	2.0	3.4
December	4.4	1.1	1.0	3.4	T	0.7	0.6	3.5	16.3	9.9	3.8	4.0
January	5.0	8.1	7.4	2.0	4.1	5.3	5.7	T	10.2	1.3	5.3	4.9
February	4.7	3.6	5.3	0.2	8.9	5.2	1.8	2.7	7.8	1.7	9.1	4.6
March	4.8	0.8	4.2	10.5	1.0	0.7	5.1	9.7	T	8.3	3.2	4.4
April	2.8	T	6.3	T	7.6	1.5	0.4	0.1	4.9	9.6	7.5	3.8
May	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.1
June	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yearly Total	27.8	15.0	37.6	17.7	30.8	14.6	23.5	19.9	42.0	32.0	32.0	26.5

Table 2. Valentine Winter Seasonal Snowfall

VALENTINE - Winter Season Snowfall

	Normal Snowfall	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	10 Yr Average
July	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
August	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
September	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
October	1.5	T	T	0.0	7.7	T	T	T	2.9	0.0	T	1.1
November	6.3	1.0	5.8	12.0	1.0	6.4	1.0	2.7	1.0	T	2.4	3.3
December	4.8	3.1	5.1	T	2.0	8.5	T	5.4	9.1	5.1	3.6	4.2
January	4.8	5.7	8.9	T	5.7	3.0	6.8	0.3	3.5	5.3	6.3	4.6
February	6.2	4.3	6.2	6.6	5.1	7.3	2.2	4.8	7.1	6.0	6.5	5.6
March	8.1	0.2	1.5	17.7	5.1	1.5	10.3	24.8	0.5	8.3	5.1	7.5
April	4.4	T	2.8	2.4	8.0	0.1	5.6	6.0	1.0	10.1	7.5	4.4
May	0.1	0.0	0.0	1.1	T	0.0	T	0.0	0.0	1.0	0.0	0.2
June	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yearly Total	36.9	14.3	30.3	39.8	34.6	26.8	25.9	44.0	25.1	35.8	31.4	30.8

Winter Weather And Your Health

By Teresa Keck, Meteorologist

In the Northern Hemisphere this year, winter officially begins at the solstice on December 21st. While that is the official timeframe for winter to begin, many think of winter as when the snow begins to fall. Climatologically, snow has fallen by mid October such as seen this year and in 2008. The winter months, from December to March, can bring a variety of weather events to include blizzards, ice storms, heavy snowstorms and bitter cold wind chills. Such events can impact one's health if caught outdoors for a prolonged period, or if conditions deteriorate with the loss of power that can cause injuries due to exposure to the cold. Health impacts can include hypothermia, frostbite, and carbon monoxide poisoning.

Winter storms are a deceptive killer as symptoms arise in as little as 30 minutes that can have a lasting affect. The American Red Cross, in partnership with NOAA, note **Hypothermia** as a condition brought on when the body temperature drops to less than 95°F. It can kill. For those who survive, there are likely to be lasting kidney, liver and pancreas problems. Warning signs include uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness and apparent exhaustion. **Frostbite** is damage to body tissue caused by extreme cold. A wind chill of -20° Fahrenheit (F) will cause frostbite in just 30 minutes. Frostbite causes a loss of feeling and a white or pale appearance in extremities, such as fingers, toes, ear lobes or the tip of the nose. To learn more on these deceptive killers and winter storms visit: **http://www.nws.noaa.gov/om/brochures/winterstorm.pdf**

Then **Carbon monoxide** is an odorless gas that can cause sudden illness or death if inhaled. During winter storms power outages can occur where in-home backup fuel and electrical power sources result in the buildup of carbon monoxide. If motorists become stranded during storms, the prolonged running of a vehicle can create a buildup of carbon monoxide in the car. The Centers for Disease Control and Prevention (CDC) identify that over 400 people die annually from carbon monoxide poisoning. All homes should have at least one carbon monoxide detector with more information available at **http://www.bt.cdc.gov/disasters/cofacts.asp**

This winter if heading outdoors...

Dress for the Season

Wear loose, lightweight, warm clothes in layers. Trapped air insulates. Remove layers to avoid perspiration and subsequent chill. Outer garments should be tightly woven, water repellent, and hooded. Wear a hat. Half your body heat loss can be from the head. Cover your mouth to protect your lungs from extreme cold. Mittens, snug at the wrist, are better than gloves. Try to stay dry.

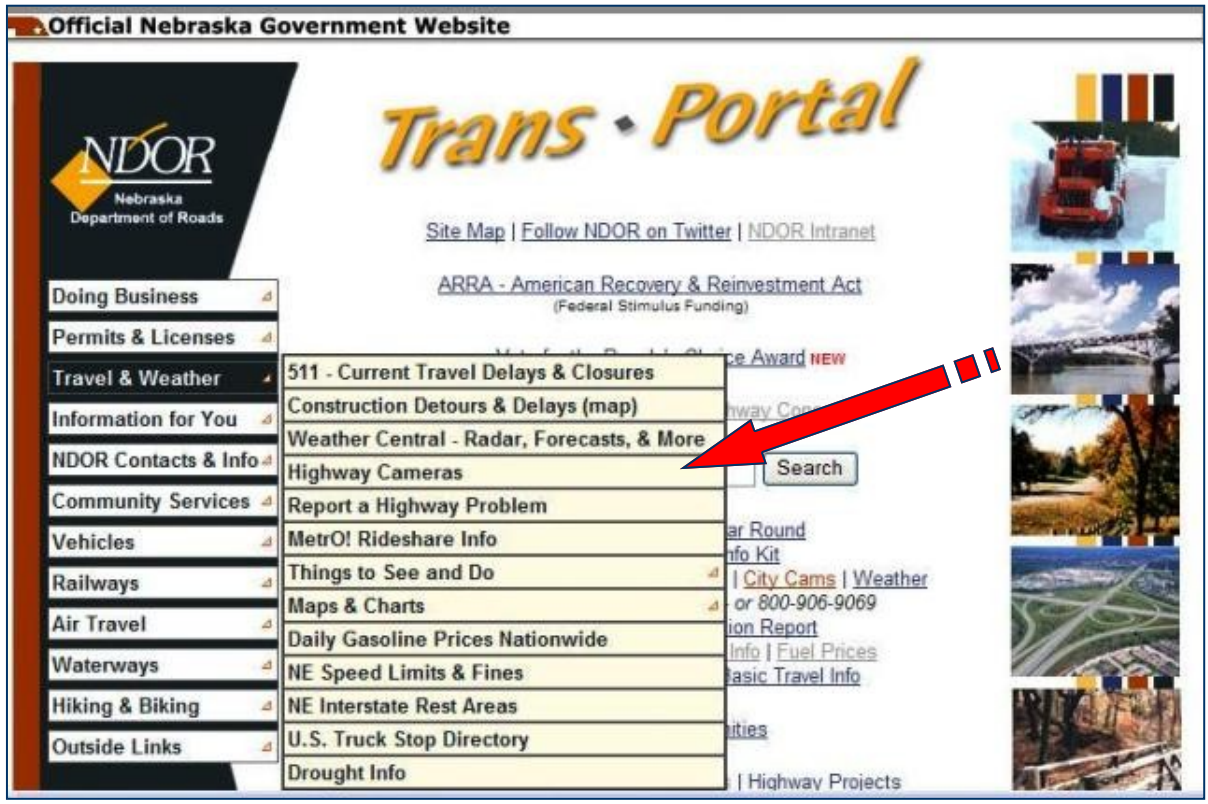
WEATHER WISE THROUGH NDOR WEBCAMS

BY STEVE CARMEL, HYDROMETEOROLOGICAL TECHNICIAN

The Nebraska Department of Roads (NDOR) web site offers an abundance of information for those needing travel information, especially during periods of inclement weather. A network of Nebraska Highway Cams can be easily accessed, for quick visual updates on how bad travel conditions may be. NDOR is updating their system for the highway cameras, and this process will be completed by the time winter driving season arrives. Other information available from the NDOR includes the Traveler Information Portal (TIP) that provides current travel delays or construction.

In partnership with NDOR we are always looking for ways to convey and relay the information gained from the Nebraska Department of Roads. Our office maintains close contact with the NDOR and appreciates their efforts on behalf of the traveling public. Their web site contains a plethora of valuable and timely information, which is why the NWS web page in North Platte links to the NDOR site, on our own Weather Safety Preparedness page. The image below provides a quick view of the NDOR website and information that can be accessed. To visit the NDOR:

http://www.dor.state.ne.us/



LAKE MCCONAUGHY RECOVERING IN 2009

By Kenny Roberg, Senior Meteorologist

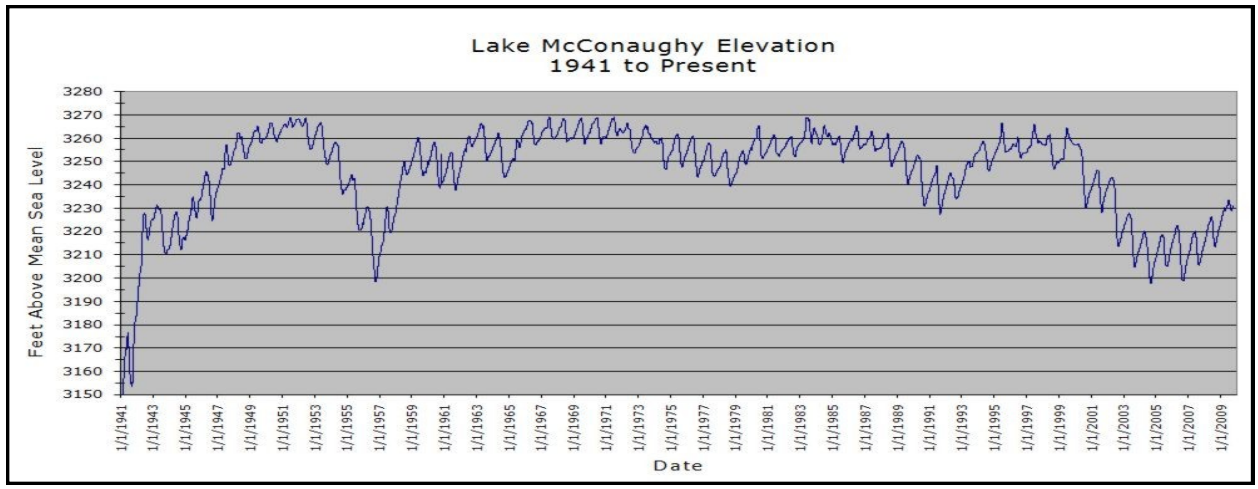
Lake McConaughy is Nebraska's largest reservoir with a storage capacity of 1,750,000 acre-feet. The lake is 22 miles long, more than three miles wide, and covers 30,500 acres at maximum fill. The lake is vital to providing irrigation to over 200,000 acres of farmland in Southwest and South Central Nebraska. Lake McConaughy has also proven to be a valuable source of hydroelectric power. Recreation is another benefit of Lake McConaughy which reigns as Nebraska's most visited recreational site.

Lake McConaughy would sustain decades of high lake elevations from the 1960s through the 1990s, often with peak lake elevations above 3260 feet as shown in the figure below. During this 40 year span, the lowest lake elevation dipped briefly to 3227 feet in September 1991.

A persistent drought began in 2000 and lasted though 2006. By September 14th, 2004, a new historic low lake elevation of 3197.5 feet was reached, slightly below the previous historic low of 3198 feet in 1956. A considerable amount of attention was drawn by the media concerning the possibility of Lake McConaughy "drying up" in the next few years, and for good reason. On August 26th, 2006 the lake would reach 3199 feet, once again near the historic low.

Due to continued conservation efforts of limited releases for irrigation, combined with improved rainfall, conditions would steadily improve in 2007 through 2009. Lake levels at the end of the irrigation season would gain about 10 feet in 2007 and 2008, and 16 feet by September 1st, 2009. Lake elevations in 2009 would peak at 3233.5 feet on July 1st and only fall slightly to 3230.8 feet as of October 12th.

Assuming inflows this winter and spring are favorable to bring an average lake elevation increase of 17 feet, Lake McConaughy is projected to reach a peak lake elevation of 3246 feet. This would equal the peak elevation which last occurred in June 2001.



Ice Fishing—Winter Recreation—Be Safe

By Shawn Jacobs, Meteorologist Intern

Winter activities such as ice fishing, snowmobiling, ice skating, cross-country skiing, snowshoeing, and playing hockey certainly are fun, but they also can be very dangerous. This is especially true if these activities take place over frozen lakes and rivers. It is essential when participating in one of these activities that the condition of the ice be checked before anyone ventures out. So when is the ice safe? Well unfortunately, there is no such thing as "safe ice." However, some ice proves to be stronger, and thus safer, than others. Before enjoying a day out on the ice, make sure you follow these simple suggestions:

Always wear some form of flotation device, even a boating life-jacket; this is especially important if you are testing the ice or snowmobiling. Carry an ice-pick which can assist in giving you grip should you fall in. And never, ever go without a friend. Only venture out when the ice is clear, whether blue, black or green - this is said to be the strongest for its thickness.

Understand that the safety of the ice depends on several factors, not just on one single factor. Factors to consider include: snow cover (which can insolate and melt the ice), depth of water under the ice, size of water body, extent of the ice, local climate, and weather fluctuations.

Make sure to have a spare set of warm dry clothes in a waterproof bag as well as an emergency winter survival kit and extra blankets. Ask around; bait shops and local proprietors will always be happy to share the locations of the safe ice. Tell someone about your plans for the day. This is always a good idea, especially in winter!

Check the ice yourself, if you see any of the following, stay away: flowing water near or at the edges of the ice - springs are especially dangerous under the ice in spring fed ponds and lakes, water flows in and or out of the iced-over water body, ice that appears to have thawed and refrozen, and abnormal surfaces that you have not seen before - for instance, pressure ridges caused by underwater currents or the wind.

Finally, check the ice depth often and remember these measurements:

3" of ice or less – **KEEP OFF**
4" of **CLEAR** ice is suitable for ice fishing or activities (200 lbs or less)
5" of **CLEAR** ice is suitable for light weight snowmobiles (800 lbs or less)
8 - 12" of **CLEAR** ice is suitable for a group of people/gear (1500 lbs)
12" or more is suitable for small cars and trucks

Remember that the ice strength is **NOT** the same everywhere on the body of water. An area may have 12 inches or more of ice, but less than 100 feet away the ice may be less than an inch. If you choose to move to a new location, check the condition of the ice as you go!

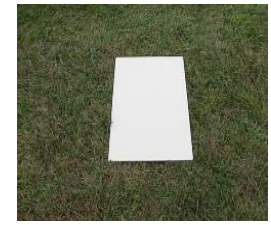
CALLING ALL COOPS

By Mark Byrd, Observation Program Leader

Information for National Weather Service Cooperative Observers

Winter is just around the corner where it is time for us to prepare for the changing weather patterns which will bring cold north winds and snow. Your timely COOP observations are of the utmost importance with accurate coop observations to provide the best picture of the weather and winter precipitation across western and north central Nebraska.

Prepare Eight-Inch Manual Rain Gauge and Place Snowboard(s)



It's time to prepare the 8 inch manual rain gauge for snowfall or freezing precipitation by removing the funnel and inner measuring tube. This is necessary to expose the 8-inch diameter overflow so that the gauge can more accurately catch frozen precipitation.

If you have a snowboard, place it out in an open area and mark the boards location with a flag or some other indicator so it can be found after a new snowfall. It should be located in the vicinity of your station in an open location, but not under trees, obstructions, or on the north side of structures in the shadows.

Note: Check your gauge to make sure there are no leaks. If there are leaks, take appropriate action and notify us immediately so corrective actions can be taken.

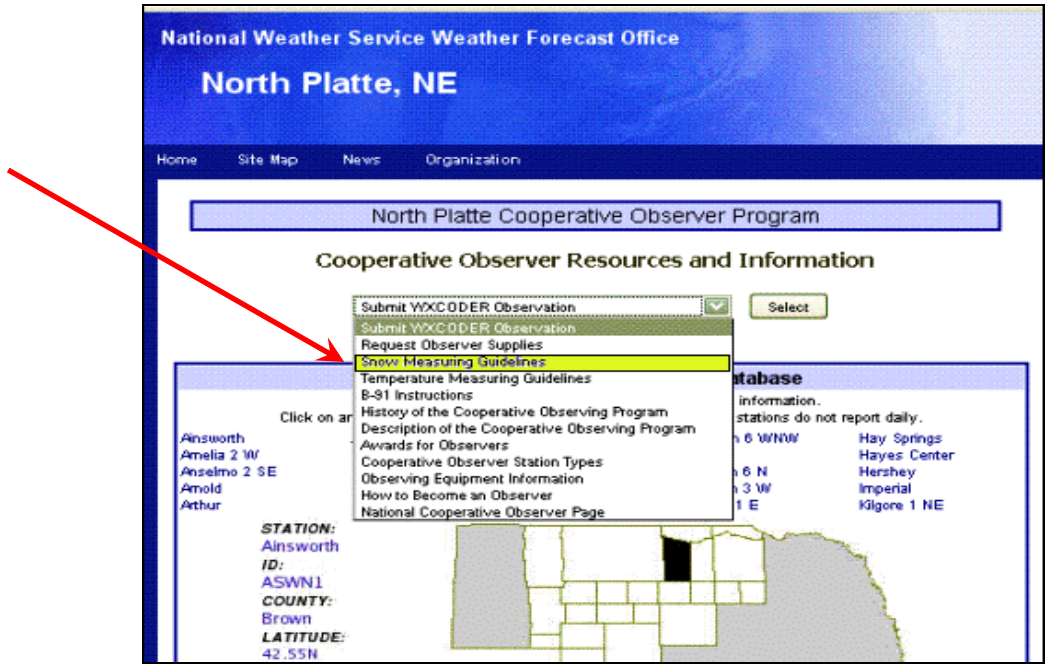
Snow Fall Measurements and Reporting

Once your equipment has been readied for winter, you are prepared for taking snow-fall measurements. There are three values when reporting solid precipitation that are needed and include:

1. Measure and record the snowfall (snow, ice pellets) since the previous snowfall observation,
2. Determine the depth of snow on the ground at the normal observation time,
3. Measure and record the water equivalent of snowfall since the previous day's ob-servation.

Remember to record the greatest amount of snowfall that has accumulated on your snowboard (wooden deck or ground if board is not available) since the previous snowfall observation. This measurement should be taken minimally once-a-day (but can be taken up to four times a day, see note below) and should reflect the greatest accumulation of new snow observed (in inches and tenths, for example, 3.9 inches) since the last snowfall observation. If you are not available to watch snow accumulation at all times of the day and night, use your best estimate, based on a measurement of snowfall at the scheduled time of observation along with knowledge of what took place during the past 24 hours. If you are not present to witness the greatest snow accumulation, input may be obtained from other people who were near the station during the snow event. If your observation is not based on a measurement, record in your remarks that the "snow amount based on estimate".

To gain additional information on snow measuring guidelines, please visit the North Platte Forecast Office's Cooperative Observer Program webpage by clicking on the image or entering the link below the image. In addition, the University of Colorado developed a video especially made for National Weather Service Cooperative Observers for snow observations that can be viewed at **http://www.cocorahs.org/media/video/measuringsnow/MeasuringSnow_320x240_323kb.wmv**



http://www.crh.noaa.gov/lbf/localinfo/coop/coopdata.php

The National Weather Service Forecast Office in North Platte would like to thank all our Cooperative Weather Observers for your snowfall observations during the past winter. Without your snowfall reports, verifying these winter events would be hard.

REPORTING YOUR OBSERVATIONS USING WXCODER III

BY MARK BYRD, OBSERVATIONS PROGRAM LEADER

Cooperative observers with Internet access should report your observations daily using WxCoder III. To submit your observations go to the following link:

http://wxcoder.org/wxcoder/home/

- Log in with your Username and Access Code
- Under "Enter New Observation" select "Daily Form"
- Enter your observation and select "Submit"
- You will be asked to "Confirm" your observation.
- If you need to make corrections select the "Make corrections" button.
- Enter your corrections and select "Submit", then "Confirm"
- If you choose to enter your data using the "Monthly form", enter your data and select "Save"
- At the end of the month you must close out your observations for the month. Select the button "Close out –month year-". Where –month year– is the month just completed. At this time you may make any corrections required. The End of Month Closeout should be done by the 5th day of the next month.

...any questions or problems please give us a call 800-603-3562...

GILBERT KOCH OF RURAL EUSTIS RECEIVES THOMAS JEFFERSON AWARD

By Steve Carmel, Hydrometeorlogical Technician

Photo description: (From left to right)

Nebraska Lieutenant Governor Rick Sheehy presents Gilbert Koch with a gubernatorial proclamation of Gilbert Koch Day.

On August 8th, 2009 Gilbert Koch of rural Eustis, Nebraska, was honored with the Thomas Jefferson Award. The award presentation occurred at 700 PM CDT, at the conclusion of the Eustis Fair and Corn Show.

At the presentation, the Nebraska Lieutenant Governor, Rick Sheehy, surprised Gilbert Koch by proclaiming August 8th, 2009 as Gilbert Koch Day, by proclamation of Nebraska Governor Dave Heineman. The Lieutenant Governor also presented a letter from Governor Heineman congratulating Gilbert on his years of meritorious service. Mr. Bob Bonack, the Service Regional Cooperative Program manager, from Central Region Headquarters in Kansas City, gave his viewpoints on the importance of Gilbert's stellar work, in not ever missing an observation over a period of 40 years.

The NWS North Platte Meteorologist in Charge, Brian Hirsch presented Gilbert with his Thomas Jefferson Award, 40 Year Length-of-Service Award, and 40 year pin.

Additional special guests in attendance at the Thomas Jefferson Award ceremony included Jessica Whalen, Community Liaison for Congressman Adrian Smith and famed COOP observer Ed Stoll's daughter Esther Grabenstein. The Stoll Award was created and became effective in 1975, in honor of Mr. Edward H. Stoll. For over 76 years Mr. Stoll was the observer at nearby Elwood, Nebraska, and was the first to receive the prestigious Stoll award. To receive this award, an observer must have taken observations for 50 years.

Fire Weather Program Receives Award

By Dennis Phillips, Meteorologist & Chauncy Schultz, Meteorologist Intern

The fire weather program here at the National Weather Service in North Platte has grown leaps and bounds over the past 5 years, but we have not accomplished this task alone. Growing alongside the program has been our relationship with many folks and agencies in the fire community across Western and North Central Nebraska. One of the most vital partnerships has been with the U.S. Fish and Wildlife Service, and specifically, Troy Davis, the Sandhills District Fire Management Officer. Many hours of coordination and feedback between local meteorologists, Mr. Davis, and his staff from the Fort Niobrara, Crescent Lake and Valentine National Wildlife Refuges ensure the continued success and positive growth in this important program. Both agencies strive for accurate data and forecasts with the main goals of fire fighter safety and the protection of life and property.

The NWS in North Platte provides fire weather planning forecasts in support of local, state, and federal agencies as they conduct prescribed burns and respond to wildfires. The NWS also issues fire weather watches and red flag warnings to highlight conditions conducive for large fire growth and extreme fire behavior.

As a result of our efforts put into these fire weather forecasts, this office was recently presented with a plaque and letter of commendation from Mr. Davis. The letter noted that our office "has performed their duties with exemplary professionalism, courtesy, and attention to detail in regards to their fire weather forecasting." The NWS staff received the recognition during a recent face to face meeting held between our office and area USFWS land management officials. These face to face meetings are held throughout the year in order for firefighting officials to provide feedback and suggestions on the products and services provided to them by the NWS, and to help NWS forecasters better understand the complex challenges that fire managers face.

The North Platte NWS is very grateful for the relationship that it has with fire managers in the area and look forward to the continued positive growth of this program.

SCIENCE SHARING SUCCESS AT HIGH PLAINS CONFERENCE

BY JOHN STOPPKOTTE, SCIENCE OPERATIONS OFFICER

The 13th Annual High Plains Conference was hosted by the North Platte National Weather Service (NWS) Office, from August 27th to 28th, 2009. This success in science sharing included 28 weather and climate presentations, with keynote speakers Brian Fuchs from the Drought Mitigation Center in Lincoln, NE; Sheldon Drobot from the National Center for Atmospheric Research in Boulder, CO; and Tim Samaras, engineer and research scientist known for groundbreaking work in the fields of tornado and lightning research.

In addition to science sharing, the conference provides college students the opportunity to compete for scholarship awards. This year, Ben Herzog, student at the University of Missouri-Columbia, was awarded this honor by the High Plains Chapter President, Mike Umscheid, shown in the figure on the right. Ben's presentation showed results from his research analyzing in-cloud and cloud-to-cloud lightning in tornado-bearing thunderstorms in the Midwest.

Ben Herzog and HPC President Mike Umscheild

The conference is sponsored each year by the High Plains Chapter of the American Meteorological Society/National Weather Association. The chapter consists of members from the NWS, as well as private and broadcast meteorologists in and around the High Plains region.

National Weather Service Office North Platte, NE

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Comments and suggestions are
always welcome. Your feedback is very important to us!